Future

iPad User Magazine

Do more with your iPad

iPAD PRO
Worth the upgrade?

Master your tablet's apps and system features

Issue 25

HOW TO Explore the Maps app; power up Extensions; write in Emoji; and more!

Welcome

to iPad User Magazine, helping you to do more with your iPad

The recent launch of Apple's iPad Pro marks a big departure for the company… in more ways than one. As its name suggests, the Pro – with its massive display – is intended to effectively replace, and perhaps even better, traditional laptop computers. Does it succeed in this? And how important are the two optional accessories launched alongside it, the Pencil and the Smart Keyboard? You can find out in our in-depth reviews this issue.

Of course, you don't need a top-of-the-line iPad Pro to be able to use your tablet to the full. In this issue we'll show you how to do a variety of things with the latest version of iOS – including a guide to extensions, one of the most useful but perhaps lesser-known recent additions. We'll also see how to have fun with emoji (aka emoticons, or plain old smileys), get around effortlessly with Maps, pep up your photos, and even control your Mac remotely using your iPad.

Have fun and see you next time!

MATT BOLTON EDITOR

@iPadUserMag

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Extensions

Do more on your iPad with extensions

SKILL LEVEL
Anyone can do it

IT WILL TAKE
10 minutes

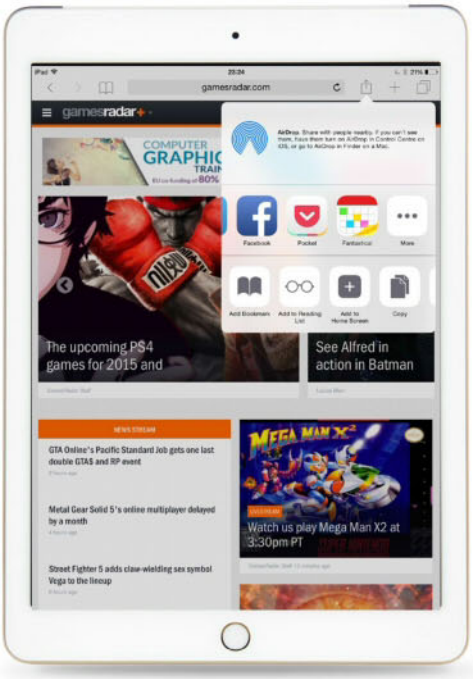
YOU'LL NEED
iPad, iOS 9, an app that provides a Share or Action extension

A long-standing complaint about iOS is the tight degree of control that Apple exercises over what apps are able to do. Those restrictions have been relaxed in iOS 9 to allow apps to extend the system's capabilities in carefully defined ways. This means you aren't reliant on Apple adding support for a particular social network to be able to share something directly to it, and kludgy workarounds such as special bookmarklets that send a web page to an online service are no longer necessary.

Extensions enable photo-editing apps to make filters and tools available within the Camera and Photos apps. Information from apps can be displayed in widgets in Notification Centre's Today view, and acted upon from there. New keyboards enable entirely new input methods to be used, which can make life easier when typing into forms, for example. The ability to share a page to new places and perform new actions upon it, such as translating it between languages, that is particularly relevant in Safari, so we'll show you the feature there.

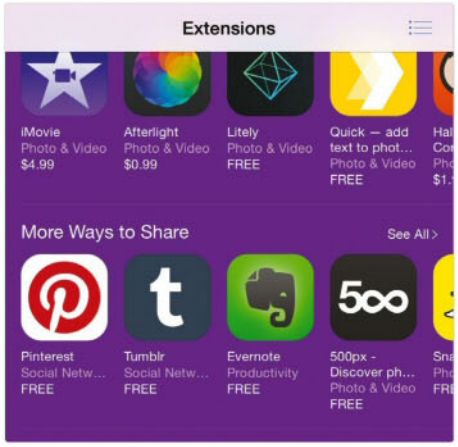
We'll show you where to find some of the most popular apps that add extensions, plus how to activate and manage them.

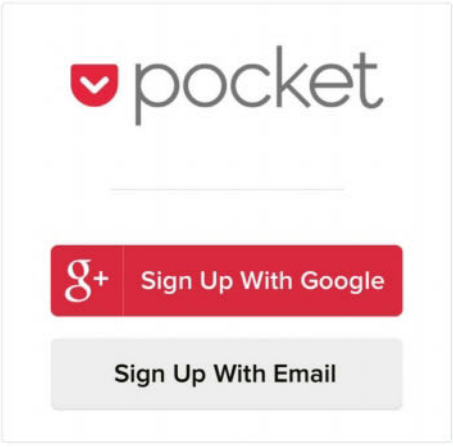
Extensions mean you aren't reliant on Apple adding support for new social networks



Extensions allow you to add new destinations for sharing things and actions for processing them to the share sheet that appears in many of iOS's built-in apps and third-party ones, too.

HOW TO | FIND EXTENSIONS





1 Finding extensions

There's no Extensions category in the App Store because apps of all kinds include them. Apple showcases good examples at http://apple.co/1K19ejo. If you have a recent version of something there, you also have its extension, but you may not like an extension forcing its way onto the sheet that appears when you tap a Share button, so turning it on is left to you.

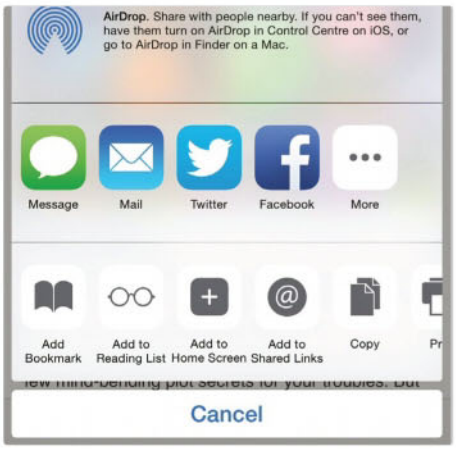
2 Extensions for sharing

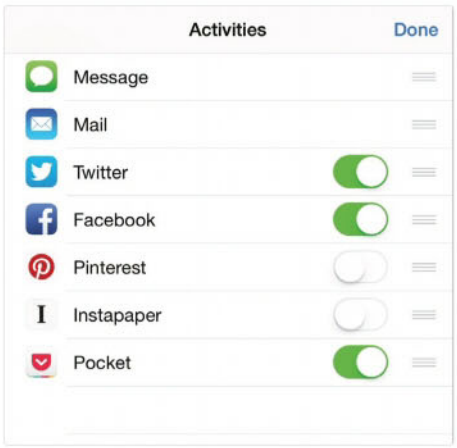
Apple's curated selection is organised by the types of extension. Scroll each row horizontally to see highlights, and tap See All towards the right of any row for more. The bottom two groups contain Share and Action extensions, which is where you should look to add support for social networks and online services not accommodated by iOS itself.

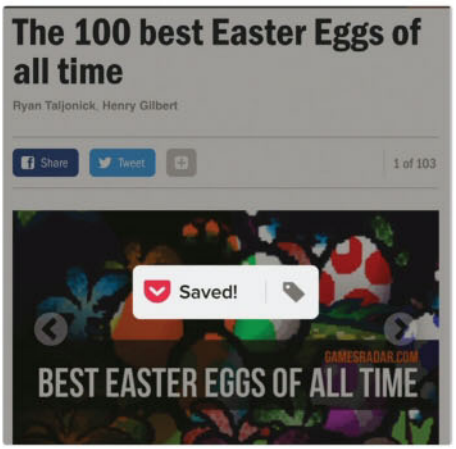
3 Install an extension

Pocket is a bookmarking service similar to Safari's built-in Reading List but with some organisational features that Apple's offering lacks. Download it now. That's all that's required to get an app's extension on your iPad. Using this one requires an additional step, besides turning it on: open its app and follow the prompts to sign up for the free online service.

HOW TO | MANAGE AND USE EXTENSIONS







1 See what's available

After signing in through the Pocket app, visit a page in Safari and tap the Share button in the bottom toolbar. In the Share sheet, Share extensions appear in the middle row. They might send the page to an app or an online service, or post a link to it on a social network. Tap the More button at the far right of the row for a list of all available Share extensions on your phone.

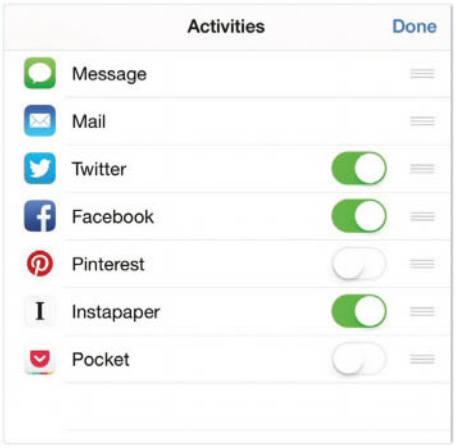
2 Turn on and rearrange

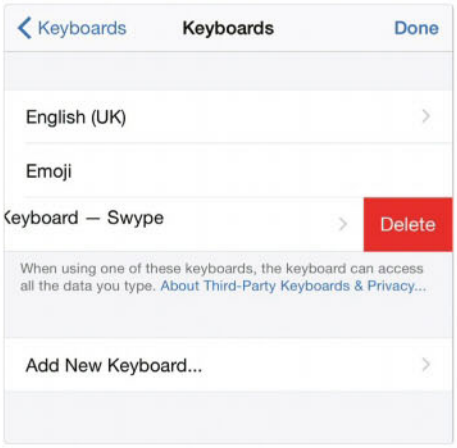
Switch on Pocket to make its extension appear in the Share sheet. Tap-and-hold on the rightmost icon in each line (the one with three lines), then drag up or down to change the order of enabled extensions in the Share sheet, saving you having to swipe to reach the extensions that you will use most often. You might also turn off any you don't care to use (see below). Tap Done.

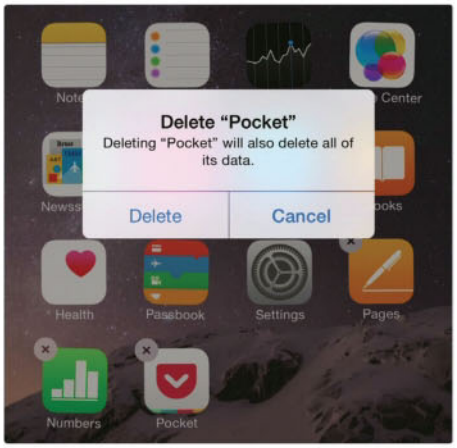
3 Try it out

Now tap Pocket's icon in the middle row of the Share sheet to save the current page to your account. On the right-hand side of the confirmation that appears in the middle of the screen, tap the tag to assign keywords – helpful if you save lots, and on different subjects. Open the Pocket app and it'll download the page you bookmarked so it can be viewed while offline.

HOW TO | DISABLE AND REMOVE EXTENSIONS







1 Disable extensions

If you decide to try out (say) a rival to an online service because it promises additional features, you can temporarily disable the extension for your existing service without removing it altogether. With the alternative app installed, go back to the Share sheet and tap More. Switch off the old extension, and enable the alternative you want to evaluate.

2 Disable keyboards

Keyboards can be hidden from the list that appears when the smiley face/globe key is held down. Go to Settings > General > Keyboards, tap Keyboards at the top of that page, swipe right to left on the one to disable, then tap Delete. (Don't worry, this won't delete that keyboard from your iPad.) Tap Add New Keyboard… on the same page to re-enable it.

3 Remove extensions

Extensions are properly removed from your iPad only when you remove the app they came with. Tap-and-hold on the app's Home screen icon, then tap the cross that appears at its top-left corner. If you later reinstall the app, iOS remembers whether its extensions – including keyboards – were turned on, but it may forget about your chosen order for them.

Express yourself with emoji

Replace words with smileys and other emoticons

SKILL LEVEL
Anyone can do it

IT WILL TAKE
A couple of minutes

YOU'LL NEED
iPad, iOS 9

Like peppering your Facebook posts, tweets or Messages conversations with smiley faces and other illustrative symbols? If so, you'll be pleased to see that iOS 9 comes with emoji images built-in.

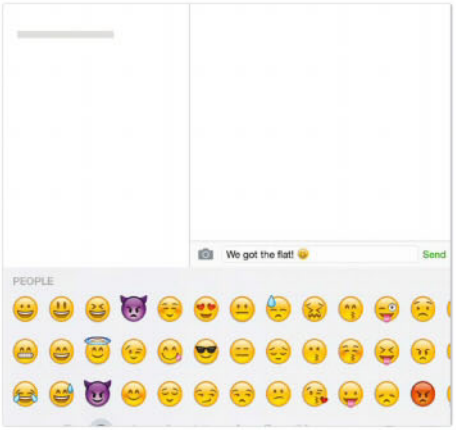
They're available from an extra keyboard containing hundreds of graphical symbols – everything from straightforward smiley faces to animals, weather symbols, seasonal figures, buildings and various symbols. If you're struggling to express yourself with words, then take a trip to the emoji keyboard to see if a colourful graphic can better convey your message. (Or if you decide you don't want it, you can remove it by going to Settings > General > Keyboard > Keyboards and tapping Edit.)

Sometimes it can be tricky working out which emoticon to use, particularly when you have such a varied choice available. Sadly, there's no explanation provided when you tap and hold on a single emoji symbol, but there's a handy website, emojipedia.org, where you'll find a detailed explanation – including title, description and images – of every single emoji on your iPad's keyboard, conveniently divided into the same categories as found on the keyboard itself. The site even provides similar alternatives for when your emoji doesn't quite hit the mark.

Note that some emoji might not display correctly (or at all) on computers and devices not using iOS 9 or OS X El Capitan, but that's also true of any special characters.

It's really fun to use emoji in your messages and posts on social network, and there are hundreds of them to choose from, organised into categories for easy selection.

HOW TO | ACCESS AND USE THE EMOJI KEYBOARD

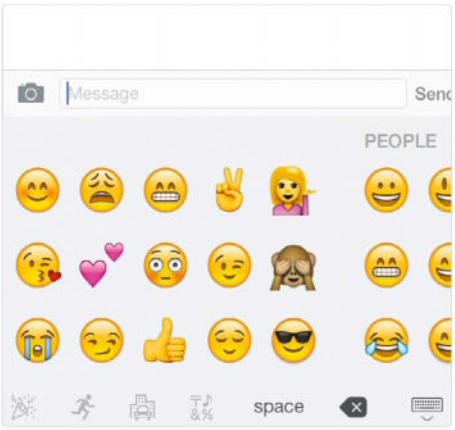


1 Tap away

The emoji keyboard is available as standard in iOS 9, so as soon as the keyboard opens you'll see a smiley face (or a globe if multiple keyboards are enabled) near the bottom-left of the keyboard. Tap it for a bank of smiley icons. Inserting one into your post or document works like the regular keyboard: just tap one and it'll appear at the cursor's position.

2 Find more emoji

Dozens of icons are displayed on-screen, yet there are hundreds more. Swipe horizontally to scroll through them all, or tap one of the grey icons at the bottom to jump straight to a category. Each category has many more icons than are initially shown. You can tap and hold on some emoji – some of the faces and the thumbs up, say – to type in different skin tones.



3 Tips and tricks

The clock key gives you easy access to your most recent and often used emoji, making it faster to use your favourites. The backspace key is located near the bottom right-hand corner of the emoji keyboard, but works in the same way as on the normal keyboard. To return to the standard QWERTY keyboard, tap the ABC key in the bottom-left corner of the keyboard.

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Master the Maps app

Find nearby attractions and get turn-by-turn directions with Maps

SKILL LEVEL
Anyone can do it

IT WILL TAKE
10 minutes

YOU'LL NEED
iPad, iOS 9

Before iOS 6, the iPad got its maps from Google by default – but then Apple ditched its rival in favour of its own service, which got off to a shaky start (thanks to some initially inaccurate data and some wonky 3D). However, since then it has steadily improved and now offers some useful features, notably satnav-style turn-by-turn navigation. You still don't get the Street View feature which is part of Google Maps, but if you want it, you can simply install Google's own app – it's a totally free download from the App Store.

Here we'll look at the main features of Apple's Maps app. One thing to note is that the search functionality is less helpful than that of Google Maps, meaning that you may well have to give it a bit more information when you're looking for a place: 'Pickwick Lodge Farm B&B' might not be enough, for example; you might have to add a street, town and/or postcode to help it along. It won't even default to the country you're currently in, so if you're searching for Hyde Park, say, it's likely to give you every other place with a similar name in the US before it manages to locate 'Hyde Park, London, UK'.

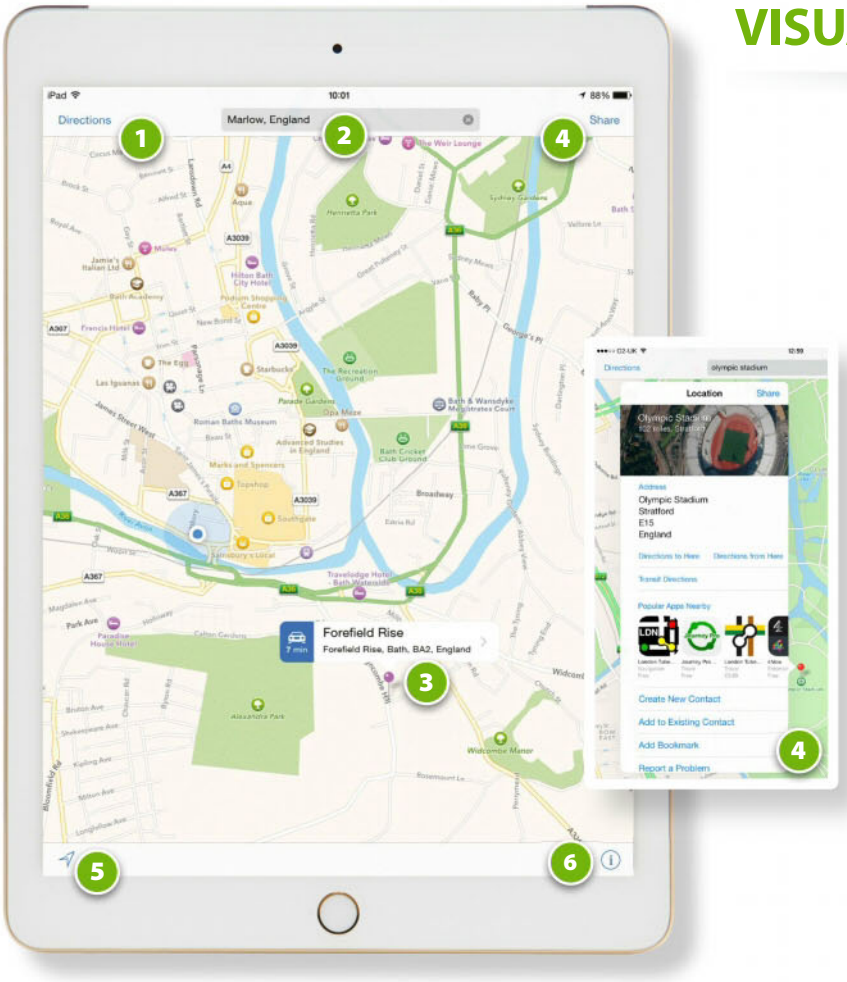
The other thing to bear in mind is that not all the location markers for points of interest are exactly in the right place (though this problem isn't unique to Apple's maps), so the best way to find out where something is located is always to use its postcode.

Maps will store some recently viewed maps on your iPad, but it ideally needs to be connected to the internet – else it won't work when you try to look at an area you haven't viewed before.

Free satnav

Turn-by-turn navigation is a great feature, but even an iPad mini is a little large to mount on the windscreen of your car. Your iPad will speak directions to you, though, so you shouldn't need to take your eyes off the road to stick to the route. Better still, if your car has Bluetooth built in, you can connect your iPad to this and have the directions spoken through your car's speakers. Note also that your location will be continually tracked using the GPS sensor in Wi-Fi + Cellular iPads, thus draining the battery faster than normal, so an in-car charger is a must.

VISUAL GUIDE | THE MAPS APP



Directions

1 Tap Directions at the top-left to get turn-by-turn guidance to your destination. We'll show you how to use this satnav-style feature on the facing page.

Search

2 Tap the search bar and type in an address, postcode or attraction name, then tap Search to find it. Remember, you'll need to be pretty specific.

Dropped pin

3 Drop a pin by tapping and holding a spot on the map. Then tap the pin to find out more about that location, including a full address and directions to or from it. You can also share the location with your contacts or add it to a new or an existing contact.

Share

4 Tap Share to send your current location to someone, either by email or by text message. There are also options here to add the location to Favourites (accessed by tapping the search bar), or to send the map to an AirPrint-compatible printer.

Current location

5 Tap the arrow at the bottom-left to centre the map on your current location, marked with a blue dot. Tap it again and the map will rotate to reflect the direction you're facing.

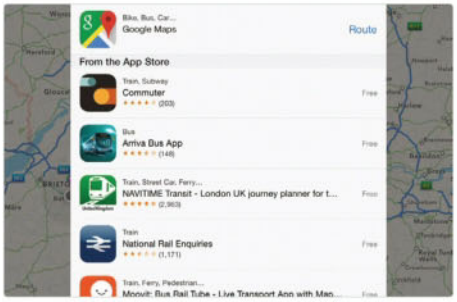
More options

6 Even better, tap the 'i' icon at the bottom right for additional options, including overlaying traffic information, a 3D view, and to switch between Standard, Hybrid and Satellite views of the map.

HOW TO | USE TURN-BY-TURN DIRECTIONS

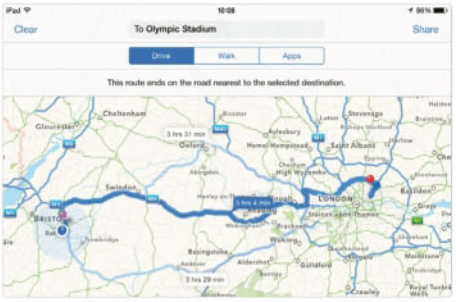
1 Where to?

Tap Directions at the top-left. The default route is from your current location to any pin you've dropped. To change this, tap the Start or End box and type the street name, postcode or contact name where you'd like to begin or end, or tap one of your recent trips listed below.



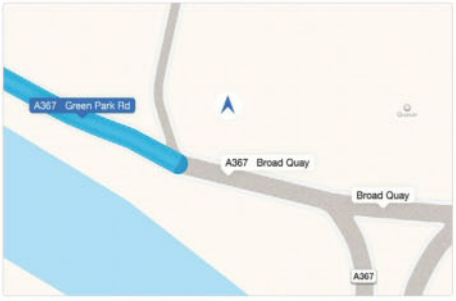
2 Mode of transport

As you type, suggestions will appear below; tap one of these at any time to select it. Tap the double-arrow icon to swap your chosen start and end points. The default method of travel is driving, but you can also get walking directions or find transit apps for your area.



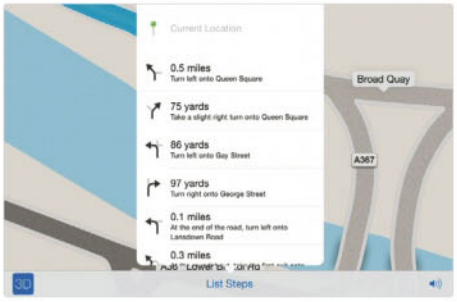
3 Pick your route

If there are multiple routes available to your destination, these will be shown more faintly on the map. Tap each one to see how long that route will take and how far it is. You may see alerts or more information at the top, too. Happy with the route? Tap Start.



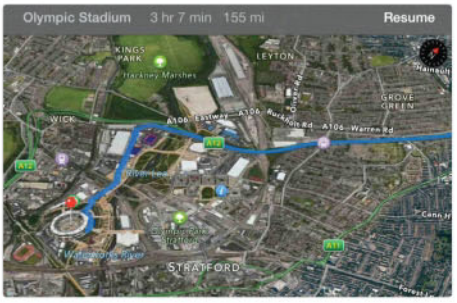
4 Off you go!

The map will zoom down to a schematic view, showing your location, the road name and directions for the current leg, with times. By default Siri will speak the directions for you. You can pinch to zoom out of the map or swipe to rotate the view if you wish to.



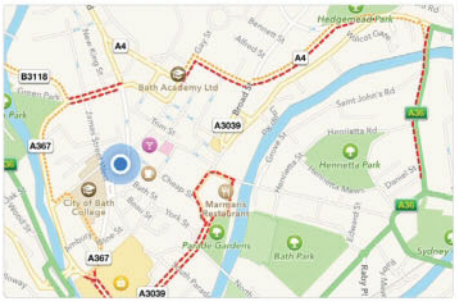
5 Overview and options

Tap the map at any time for options. Tap List Steps in the middle at the foot of the screen for the full set of directions in text form. Tap the speaker icon at bottom-right to turn off the voice or adjust its volume. Tap Overview at top-right to zoom out and see the whole route.



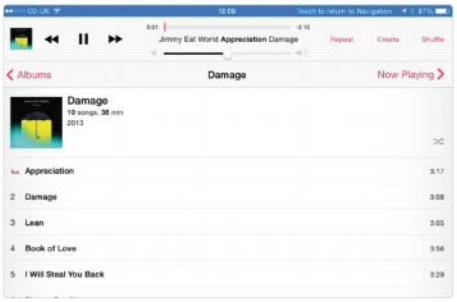
6 Get a better view

At the overview, you can tap the ***i*** icon at bottom-right and switch to satellite or hybrid view, pinch to zoom, and twirl two fingers to rotate the view – a little compass at top-right will help you keep orientated. The other really useful option in the menu is Show Traffic.



7 Traffic information

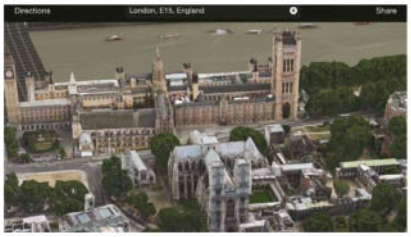
When you ask Maps to show traffic, you'll see lines along congested roads: red (severe) or orange (less severe). You'll also see sets of roadworks marked as little orange icons. When you tap Resume, all these handy options vanish and you return to the plain map view.



8 Changing a journey

To stop turn-by-turn navigation or to alter your route – for example, to avoid a traffic jam – tap End, then start again from step 1. You can still use other apps during a journey; the status bar will turn blue and you can tap it to jump straight back to your current leg.

3D FLYOVER TOURS



The Maps app includes 3D Flyover tours. Whenever you search for a city, it will tell you if this virtual sightseeing guide is available. Not all cities are supported, but try out London, New York, San Francisco, Paris, Rome, Cape Town and Madrid.

Browse the web with Safari

Learn how to use the iPad's easy-to-use yet capable web browser

The iPad is a fantastic tool for browsing the web. Its large, high-resolution display makes pages look incredible, and being able to pan around and zoom into pages and open links with your fingers makes for the best web browsing experience available. iOS 9 includes a sleek new version of Apple's Safari web browser that's easier and more fun to use than ever before.

Instead of separate address and search fields, there's now a unified 'Smart Search Field' at the top of the browser. This is a powerful new way to find resources on the web, from specific pages by address to telling a search engine what you want, searching your personal bookmarks and items in your browsing history, and even looking for words on a page. If you're looking for something then the Smart Search Field will deliver it.

SKILL LEVEL
Anyone can do it

IT WILL TAKE
10 minutes

YOU'LL NEED
iPad, iOS 9

Safari now also boasts a comprehensive set of features that go way beyond most web browsers. As well as being able to bookmark pages, you can add them to your Home screen (where they appear as app icons). You can also add pages to your Reading List, which is a place to store articles you perhaps don't have time to read right away but don't want to bookmark permanently, and its contents are synced to devices signed into your iCloud account.

You can also strip out unwanted web ads, banners and other distractions from a page using the built-in Safari Reader; and Safari integrates with your social media accounts so you can share to Facebook and Twitter to your heart's content. Shared Links lists, right inside Safari, pages shared on social networks by your friends.

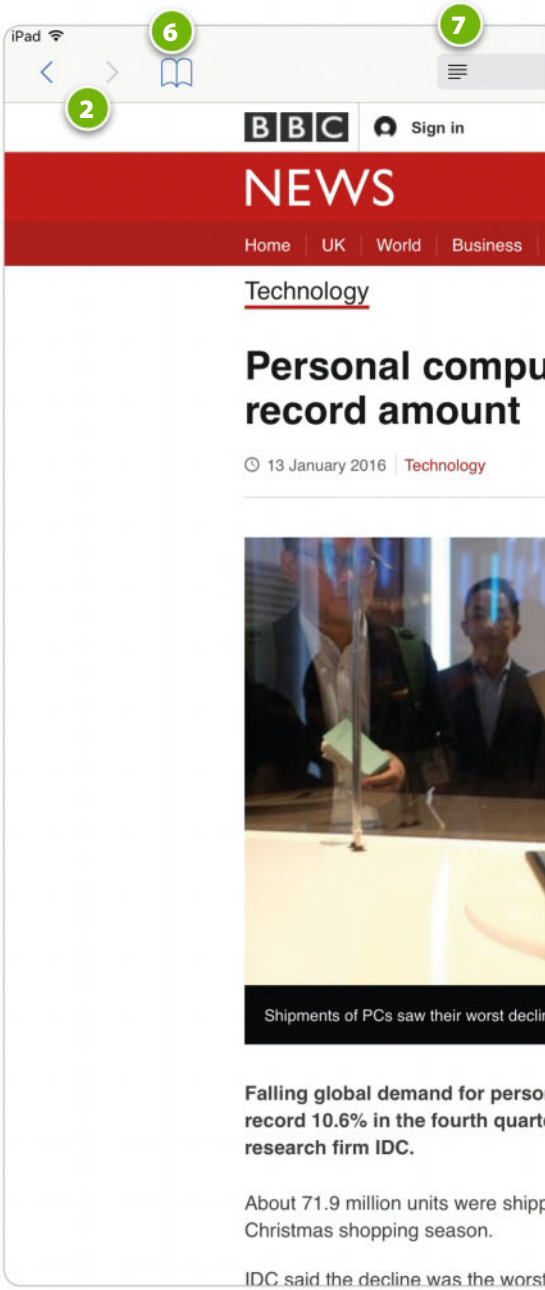
Let's see how it all works…

1 The Smart Search Field

At the top of Safari sits the efficient new unified Smart Search Field. Tap it and the keyboard appears, enabling you to enter web addresses or search terms. Enter an address, such as www.bbc.co.uk/news, or a search term such as 'BBC news' and tap Go. By default, Safari submits search terms to Google's search engine, but you can switch to using another in Settings > Safari > Search Engine.

2 Navigating web pages

Swipe your finger up and down the screen to scroll through a web page. Use the pinch-to-zoom gesture to zoom in on text and images, or double-tap a part of the screen to intelligently zoom to that element. Just tap on links to open them, and swipe in from the left or right edge of the screen to go back or forward a page at a time, respectively. Hold a finger on a link for handy options such as Open in New Tab or Add to Reading List.

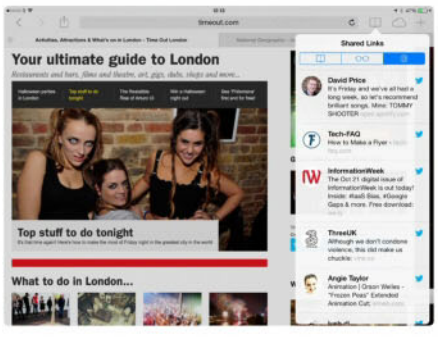


3 Saving images

You can save an image by holding a finger on it until a contextual menu appears. Now choose Save Image and it'll be sent to the Photos app. Go there and you'll find the picture in the Photos tab. You can use the image as your iPad's wallpaper, or share it on Facebook, Twitter or Flickr by tapping Share, or send it by other methods that appear in iOS's share sheet – including AirDrop to your Mac or iPhone.

Shared Links

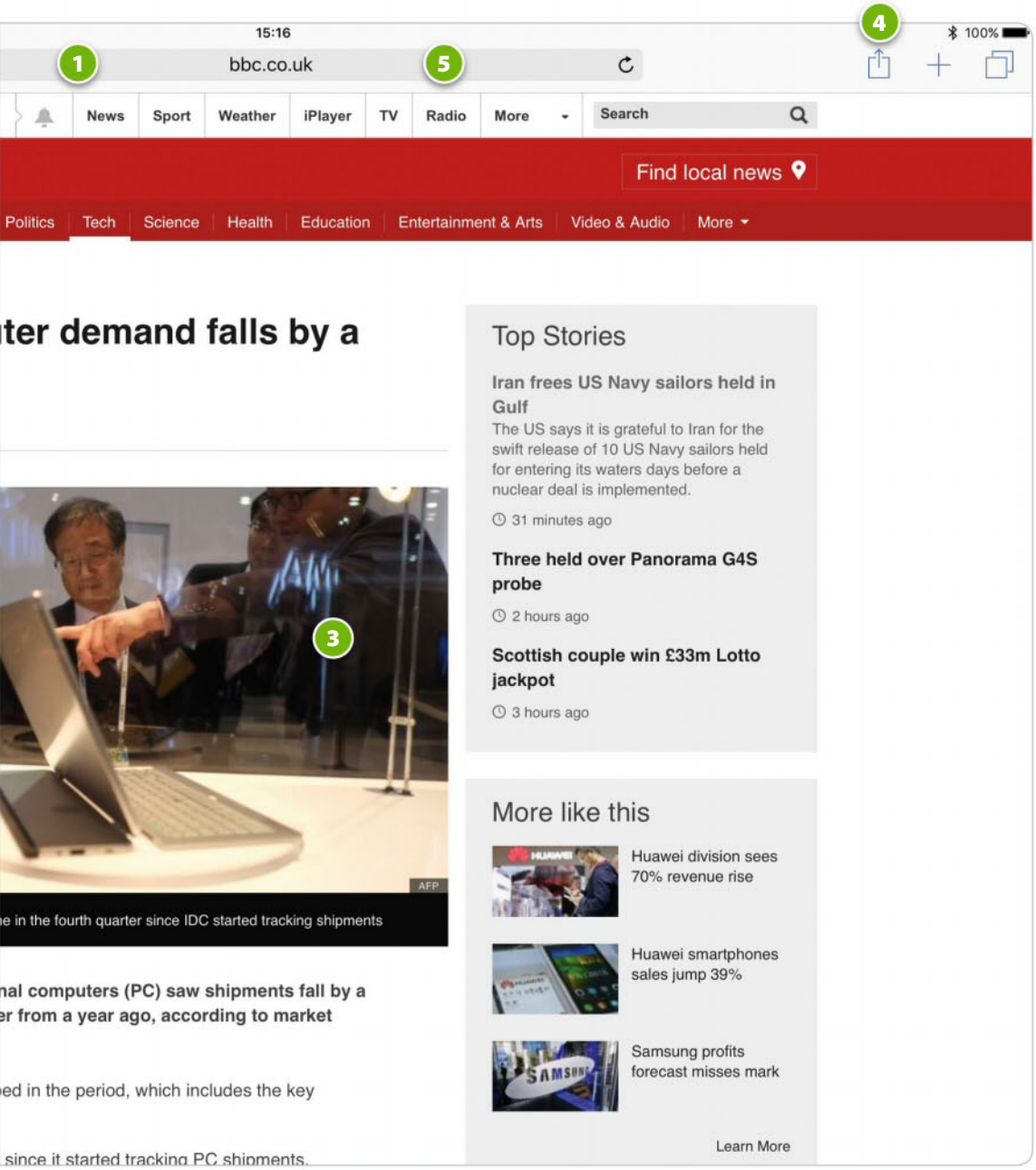
Shared Links is one of the neatest new features in Safari. It shows links that have been shared by other people using social media accounts (mostly Twitter). First ensure that you are signed in to Twitter: tap on Settings > Twitter then enter your username and password and tap Sign In. Go back to Safari and tap on the Bookmarks icon in its toolbar. Tap the Shared Links tab (the one that shows an '@' symbol) to view things that have been shared on Twitter. Tap any link and that page will open.



Use the Shared Links feature to quickly see what pages your friends are sharing on Twitter and LinkedIn.

7 A clearer way to read a page

Safari Reader is a great way to view lengthy articles without distractions such as flashing adverts. It strips down a page to just its main text and the images that belong with it. To view a page this way, tap the icon that shows four horizontal lines, at the left-hand side of the Smart Search field. Tap it again to see the page as normal.



4 Adding bookmarks

To bookmark a page, tap the Share button in the toolbar (an arrow emerging from a square) and choose Add Bookmark. By default, bookmarks are added to Favourites (tap Location to change this). Tap Save to bookmark the page. Access your bookmarks by tapping the icon that looks like an open book, then the leftmost tab. Just tap a bookmark to open it. Tap Edit to add new folders to organise your bookmarks or to remove items.

5 Finding text on a page

One neat trick that some people overlook is that you can search through the text of a page using the Smart Search Field. Enter a word and look for On This Page at the bottom of the results; below that heading, tap the option that finds your word and Safari will highlight in yellow all instances of it on the page. Step through them using the arrows in the bottom left corner of the screen, and modify your search term at the bottom right.

6 Set up a reading list

Reading List is a great way to keep track of articles that you want to read at a later date. Tap Share and then Add to Reading List to add the current page to it. Tap the open book icon and then the Reading List icon (which looks like a pair of glasses). As you tap items in the list they disappear from it; switch between seeing all items and only unread ones using the control at the bottom-right of the list.

iCloud Tabs and AirDrop

You can share pages seamlessly with other people using the AirDrop feature in iOS 9. Slide your finger up from the bottom of the screen to reveal Control Centre and tap AirDrop and then Everyone (you can choose Contacts Only to be more selective). Now tap Safari's Share button and anyone nearby with AirDrop enabled will appear in top row of the share sheet. Tap a person and they'll be asked if they want to receive a link from you. Also, you can use iCloud Tabs to view pages you've left open on other devices signed into your iCloud account. Tap the icon that shows two overlapping rectangles (top-right) and scroll down to see them.

Editing your photos

Adjust your shots and add effects in Photos

SKILL LEVEL
Taking things further

IT WILL TAKE
20 minutes to get started

YOU'LL NEED
iPad, iOS 9, some photos, optionally some apps with photo-editing extensions

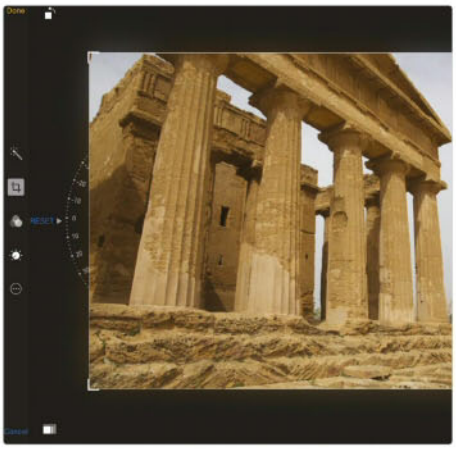
Your iPad's camera can be used to take amazing shots, but the fun doesn't end in the Camera app: you can apply a variety of adjustments and effects to live up your snaps using iOS 8's dedicated Photos app.

The tools you're likely to use most often are crop-and-rotate and, for portraits, Remove Red-Eye. The Auto Adjust option is also handy: one tap can improve many images. For more control you'll want to get to know the new adjustment options. In Photos, you can manually adjust Light and Colour, and create custom mono conversions. There are also a range of photo filter effects, but the real stars of Photos are extensions, which enable it to plug into other apps and add a near-limitless range of new effects and filters.

HOW TO | EDIT PICTURES QUICKLY IN THE PHOTOS APP

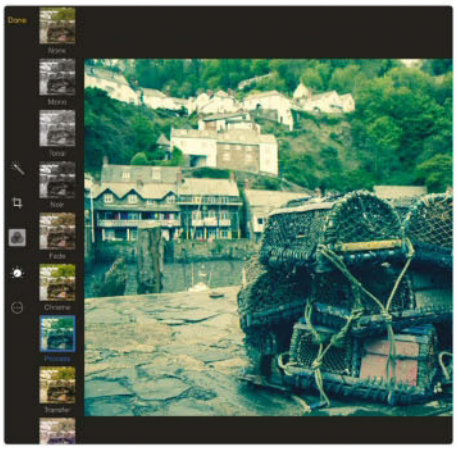
1 Edit and Auto Enhance

Open Photos to review the shots you've snapped, tap on one, then tap Edit (top-right). The editing options appear; their location will vary depending on whether your iPad is in portrait or landscape orientation. Often the most immediately useful option is Auto Enhance (represented by the magic wand icon). Tap this and Photos will attempt to improve the colour and contrast of your photo automatically.



2 Crop and rotate

Tap the Crop tool. If Photos detects a line in the image that it thinks should be horizontal, it automatically rotates the shot to suit. You can fine-tune using the wheel, or undo by tapping Reset. To crop, drag the white frame border or its corners. Optionally, tap the aspect ratio icon (overlapping squares); a rule-of-thirds grid will be displayed to help you perfect your composition. Click Done to save your changes.



3 Using Photo Filters

The Photo Filters option enables you to quickly add special effects to your photos. Tap the filters icon to reveal a row of effect previews. Tap each in turn to see how it affects the image; tap Done to finish. You can remove an effect by tapping its preview again or by tapping None, and add further adjustments afterwards. You can revert to the unedited shot at any time, even if you've closed and reopened it.

HOW TO | ADD ADVANCED EFFECTS

1 Remove red-eye

Red-eye (caused by reflected camera flash) is a common problem in portraits. Photos has a built-in red-eye removal tool, which will appear if the app detects a face in shot. Tap the tool (the eye-shaped icon), then tap on each affected eye. Sometimes you need to tap a few times for Photos to locate the red-eye; it can help if you pinch to zoom in first. Tap Done to finish.

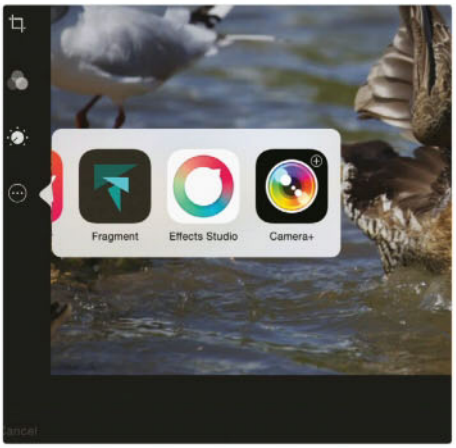
2 Adjustments

The new adjustment options offer both simple and advanced modes. Tap the dial icon, then tap the option you want to adjust (Light, Color or B&W). You'll see a spectrum of small preview images. Drag this to apply the adjustment (lightening or darkening the image, increasing or reducing colour saturation, and so on). Tap Done to apply or Cancel to reject it.

3 Expert editing

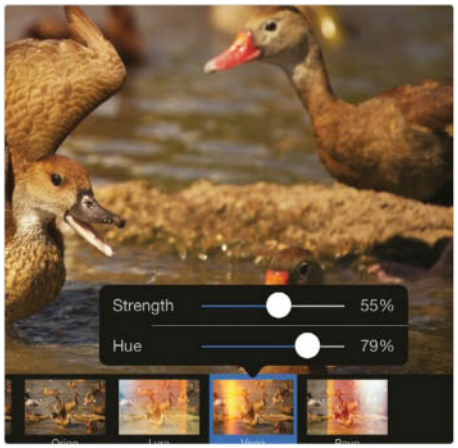
Want more control? Either tap the menu icon that shows three horizontal lines or swipe the preview slider to reveal further controls (such as Saturation, Contrast and Cast). You can use these sliders to adjust each specific setting and fine-tune images with precision. Either swipe back to the basic slider, or tap the three-line icon and hit the main icon to return.

HOW TO | USE EXTENSIONS IN PHOTOS



1 Install and activate

Extensions are a new addition to the Photos app, and they change everything. First you need to install a photo editing app that supports extensions, such as Pixelmator, ProCam and Camera+. After installing the app you'd like to use, open Photos, pick a shot and tap Edit. Now tap the Extensions icon (the circle with three dots), tap More and then activate the extension for the relevant app.



2 Access Extensions

Your chosen app now appears in the list that pops up when you tap Extensions in Photos. Tap it (you might have to OK an alert the first time) and you will see a bunch of new editing options, depending on the extension app that you have chosen. Pixelmator, for example, offers a range of 14 different effects, while Camera+ contains a whole suite of more traditional photo editing options.

3 Add effects

Here we're adding some cool graphical effects using and app called Fragment. When finished, tap Done to return to Photos, then Done again to save all your changes. Reselect the image and tap Edit, then tap and hold one finger on the image to view the original. This enables you to compare it with your edited version. To remove all edits, tap Revert, then Revert to Original. You can do this at any time.

Control your Mac from iOS

Access your Mac apps even when the computer is in another room

SKILL LEVEL
Hard

IT WILL TAKE
10 minutes

YOU'LL NEED
Remoter VNC, a Wi-Fi network

Wouldn't it be useful to be able to control your Mac remotely? That way, even when you're not actually in front of your Mac, you can see if a download has completed or to open or quit an app, for example.

Well, you can indeed do this from your iPad or iPhone. There are a number of apps that make this possible, and they work over VNC (Virtual Network Connection). This performs most quickly over your local network, but can also be used in conjunction with apps such as TeamViewer to keep you connected to your Mac even when you leave the building. Being able to see your Mac's screen and control the computer from your iOS device gives you more capabilities than if you were to simply connect to it as a networked drive.

VNC is a great way to use computers that are elsewhere in your home or office without having to be physically present. Here's how to do this using a £2.99 app called Remoter VNC.

Use computers that are elsewhere in your home or office without having to be present

VISUAL GUIDE | REMOTER VNC

Finding your way around the interface isn't too difficult

Connect to a computer

1 The back arrow disconnects your session and returns you to a list of computers. The icon to its right gives you the option of zooming in or out to fit height or width, or using fullscreen mode.

Type from afar

2 You can tap anywhere it's possible to enter text, as if you clicked it with a mouse or trackpad, then, with the virtual keyboard open, type as if you were at your Mac. This is a great way to control apps that don't have a dedicated remote control app.

Mouse customisation

3 These icons alter how a single tap is interpreted: as select, click, Alt-click or double-click. There's a fullscreen option.

The virtual trackpad

4 Tap this to reveal a virtual trackpad. One part is a 360-degree pad for scrolling in any direction. There's also a narrow strip to the right, used to scroll up and down.

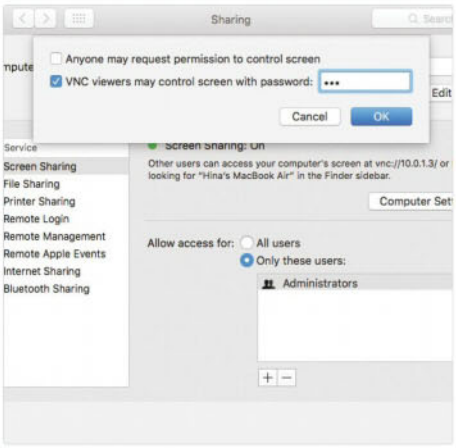
Advanced menus

5 You can send more advanced commands to your Mac, such as pasting text from Remoter VNC on your iOS device to the remote Mac, dragging through an area of the screen to make a multiple selection, or switching between monitors. The Macro menu lets you record sets of actions that can be repeated with a single tap, which greatly speeds up repetitive tasks that might otherwise become tedious.

The virtual keyboard

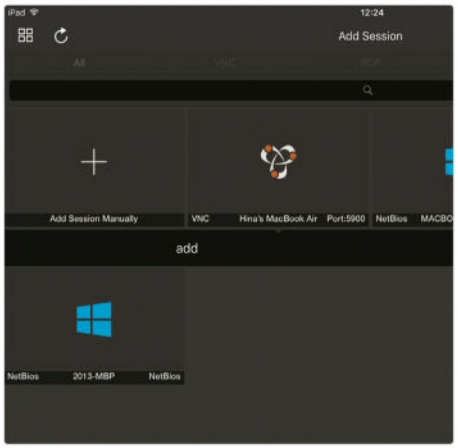
6 You can call up the virtual keyboard to send text input to the Mac. This is actually held in a preview window on your iOS device as you type, and only sent when you hit the Return key on Remoter VNC's keyboard.

HOW TO | ACCESS YOUR MAC USING REMOTER VNC



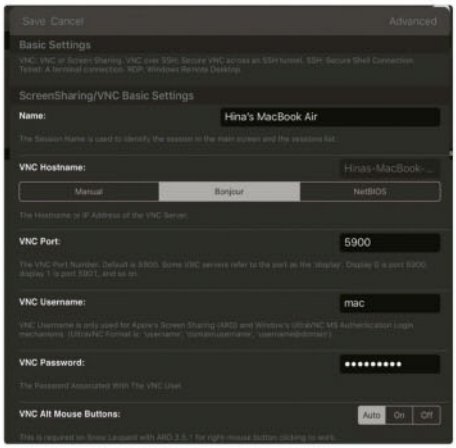
1 Turn on Screen Sharing

On your Mac, open System Prefs and click Sharing. Tick next Screen Sharing. Click that item, then click Computer Settings. In the pane that opens, tick 'VNC viewers may control screen with password', then click in the adjacent box and enter a password. This ensures nobody else can control your Mac. If you plan to give this password to someone else, make sure it's different to the one you use to log in to your user account.



2 Set up Remoter VNC

Download Remoter VNC from the App Store on your iPad/iPhone, and make sure the device is on the same wireless network as the Mac. Click on the + icon (top left) to see a list of computers on your network. You should see your Mac appear, using the name that's set at the top of its Sharing preferences pane – make sure it's the one with the VNC icon. Tap the name of your Mac, then tap Add to provide settings for it.

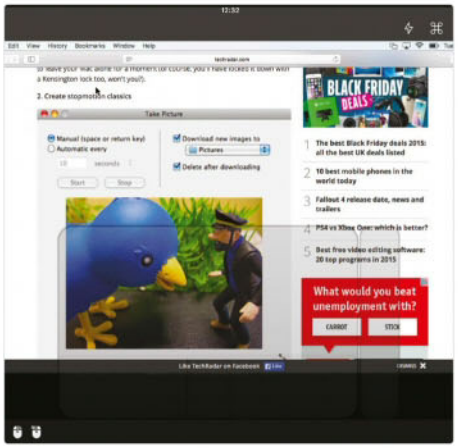


3 Provide login details

The app should have detected you want to use VNC, but if it hasn't you can correct it by tapping the Server Type item and selecting VNC ScreenSharing. Move down to username and password, which are necessary to connect to the Mac. Next to VNC Username, enter the administrator account name you use on the Mac, and for VNC Password enter the password you set in step 1. Tap Save. You will return to the main screen.

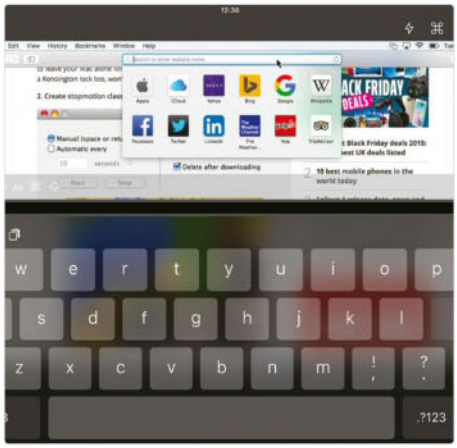
4 Connect to your Mac

Tap your Mac on Remoter VNC's main screen, then Start. The app will connect over your Wi-Fi network and give you remote control of the Mac. You can spread two fingers apart on the iPad screen to zoom into the Mac desktop, and pinch them together to zoom out. Tapping the iPad's screen moves the Mac's pointer to wherever you tapped. Tapping items on the screen has the same effect as clicking on them with a mouse or trackpad. There's a fullscreen mode icon at the top-left corner.



5 Control the pointer

Tap the trackpad icon (bottom right corner) to open the virtual trackpad. The larger area on it is used to move the pointer. The smaller strip on the virtual trackpad's right side controls vertical scrolling. This works in any document or window where scrolling is possible, such as websites or Pages documents. Actions you set up for the trackpad on the Mac are also translated. For example, a two-finger tap on the virtual trackpad opens a contextual menu in certain places.



6 Use the keyboard

You can call up a virtual keyboard to type. You need your Mac to be focused on something where it's possible to enter text, such as a Pages document, Safari's Smart Search, or Spotlight, then tap the keyboard icon (bottom right). A small, temporary text field above the virtual keyboard shows you a preview of what's typed. Confirm it's correct, then press the Return key to send the text to your Mac. If you've typed something in Safari's Smart Search field, press Return again to search or go to the address.

iPad Pro

It's everything you love about the iPad, only a little more confusing…

★★★★☆

From £679 Manufacturer Apple, apple.com

Available capacities 32GB, 128GB **Display** 12.9-inch, 2,732x2,048 pixels **Colour options** Silver, Gold, Space Grey **Other** 8MP camera (rear), 1.2MP camera (front), 4G on the top-end model, Touch ID, A9X processor

Evolution of the biological kind is a tough thing to follow, because it happens glacially slowly. It's not like you can just throw a rat off a cliff and it'll sprout wings halfway down to save itself. Yet it sometimes feels as if that's largely how evolution works in the tech world – and with the iPad Pro, it feels like we've caught the process halfway down. The result, while impressive and definitely welcome as the ground rushes terminally upwards, is just as odd and as unsettling as a rat sprouting wings.

At one level, of course, you can say the iPad Pro is just a big iPad, because to no small degree that's exactly what it is. You can now choose between the 7.9-inch iPad mini, 9.7-inch iPad Air and the 12.9-inch iPad Pro, and in theory, the only major thing that differentiates them is screen size. But by now we know that changing the size of the screen can make a big difference to iOS devices – the idea that the iPad isn't important because it's 'just' a big iPhone is long dead.

For a start, that big screen is just glorious – not only in its detail and size for things like showing photos, but for the extra utility you get out of having more space when drawing and painting, or editing movies. For much of iOS, having the larger screen doesn't make that much of a difference, but when your favourite app adds extra tools and options that make it faster and easier to use, on a larger screen where it's all clearer, it can be quietly transformative. While the 12.9-inch screen initially strikes you as comically large, the whole thing is lighter than you expect, and its scale soon stops seeming silly. It's surprisingly comfortable to wrangle in an armchair, though you may find it's something you look down at, more than lift up, when reading.

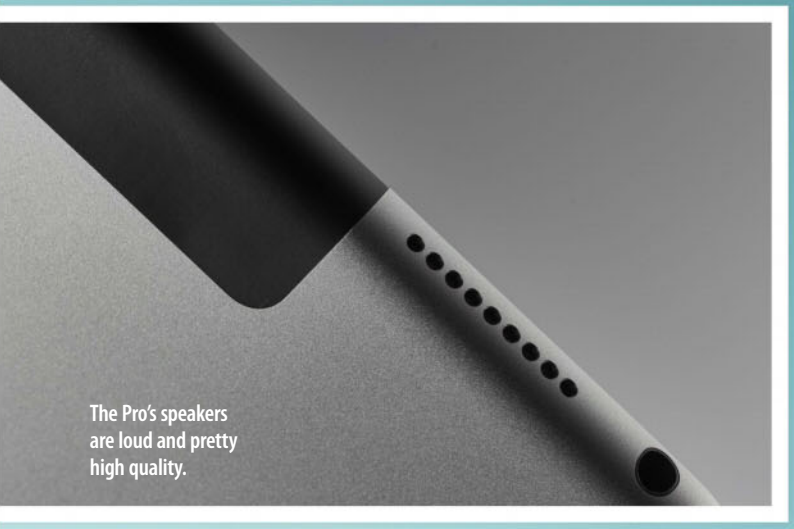
The speakers – proper stereo speakers, which switch orientation with the device – are far richer and fuller than any other iPad; you probably still want an external speaker for really enjoying music, but they are surprisingly effective for video, especially. (Had the speakers taken up less room internally, Apple could probably have pushed the iPad's battery further than its now standard 10 hours, but we think most will be happy with that trade-off – especially since extra battery capacity would have meant more weight.)

A lack of shortcuts means the Smart Keyboard is not an essential purchase.

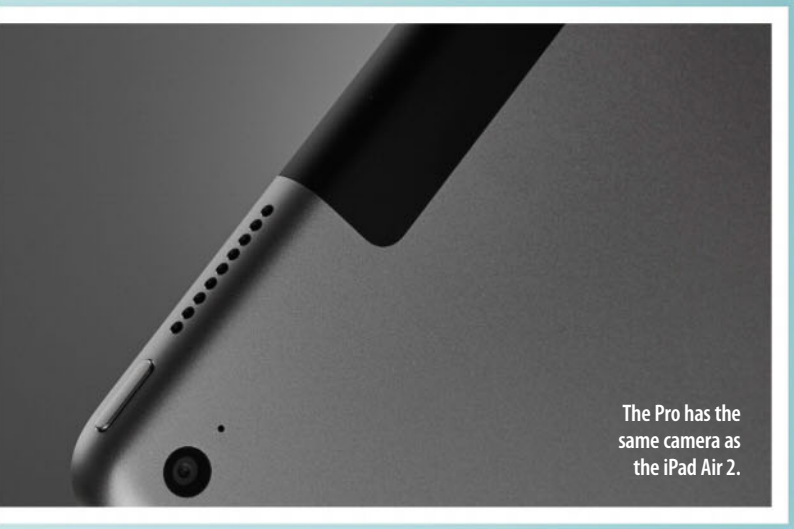
iOS 9's split-screen multitasking capabilities are genuinely of huge benefit here, even more so on the Pro's bigger canvas

Of course, with its 'pro' name, it's also ridiculously powerful and flexible as a computer, too. The A9X chip is a dual-core processor, running at 2.25GHz – much faster than any other Apple CPU to date. Apple says it can take on tasks that only Macs/PCs could do before, and that proves to be true – up to a point. Simple synthetic benchmarks suggest that it's at the

Contacts
Camera
Photos
Notes
Thursday
12
Calendar
Photo Booth
FaceTime
Videos
iBooks
Maps
App Store
Clock
iTunes Store
News
Reminders
Settings
Music
Mail
Safari
Messages



The Pro's speakers are loud and pretty high quality.



The Pro has the same camera as the iPad Air 2.

It charges using the Lightning port – which takes a while.

right level: its single-core score in the Geekbench processor benchmarking tool was 3,233, while a 2014 13-inch Retina MacBook Pro scored 3,245, which is effectively no difference at all. (The iPad Air 2 scores 1,434, for comparison.) Many simpler computing tasks use a single core in practice, so it's easy to think the Pro has reached MacBook Pro levels of performance. The MacBook Pro's Intel processor posts a bigger lead for multicore benchmarks, where it scores 6,966 compared to the iPad Pro's 5,496 – which suggests that for intense pro tasks, the MBP would still have a small edge. (The iPad Air 2 scored 3,100.)

But synthetic benchmarks are… well, synthetic. There are many factors that affect performance in the real world, so we gave the iPad Pro some measurable practical tasks to see how it and the MacBook Pro dealt with them. We started by using the WinZip app on both platforms to compress and encrypt a 670MB folder (using AES 256-bit encryption). The iPad Pro managed the task in 35 seconds, while the MacBook Pro worked through it in just 15 seconds – a much bigger difference than the benchmarks would suggest. The iPad Air 2 took 47 seconds, which roughly fits with its multicore benchmark difference from the Pro.

We can't think about the iPad Pro's power in Mac-based legacy terms

However, when we tried a test of exporting two minutes of 4K video footage (with the 'Blast' filter applied) in iMovie on both platforms, things were reversed. The MacBook Pro took 271 seconds to complete the export, while the iPad Pro took just 37 seconds. Even the iPad Air 2 took only 50 seconds.

What's the conclusion from results that swing like that? The first thing to note is that, because our tests were across different platforms, they'll never be perfectly equivalent – but since we're measuring practical results, we still get a good idea of what kind of working speed you actually get from them. But possibly the main point is that we can't think about the iPad Pro's computer power in Mac-based legacy terms. The WinZip results are roughly what we might have expected from putting a desktop processor that draws more power against the tablet chip, even if the benchmarks indicate they're closer – but the video export times suggest the iPad Pro may use hardware acceleration for video encoding, while iMovie on the Mac isn't.

This is the thing: with Apple developing its own chips, it's adding custom extra features, such as its DSLR-class image processors for taking better photos. Instead of relying on a more powerful CPU to do everything, it can add special sauce to make certain difficult tasks faster. So while we can still compare the results to a Mac, it means it's not always a 'fair fight', and that looking at benchmarks alone won't tell us very much.

Speed beyond hardware

Indeed, in practice, the differences in speed when working on the iPad Pro compared to the MacBook Pro are likely to come from your software's interface rather than the device's hardware. Some things are faster in apps that rethink stale workflows. Some things are slower in apps that jettison useful shortcuts and other power-user tricks. Some tasks are slower on a device with no visible filesystem and limited windowing.

In many cases, the hardware only needs to be up to a certain standard, after which speed (or lack of it) is down to the software or user level. And when we talk purely about speed, the iPad Pro is probably at that standard. Just using it – opening apps, moving between them, searching and so on – is simply beautifully fast.

But we're still waiting to see how many apps will scale up in power for the Pro, and whether they'll match their desktop equivalents when they do – for example, at the time of writing, Pixelmator canvasses are limited in size compared to the Mac version, and you can only have a certain number of layers before having to flatten them to continue. iMovie can only do two video tracks, with no Final Cut equivalent to step up to.

In short, fast hardware is great, but the software has to match it. This isn't explicitly a criticism of the iPad Pro, but it's certainly something to think about if you're looking at one as a Mac alternative.

The new Mac?

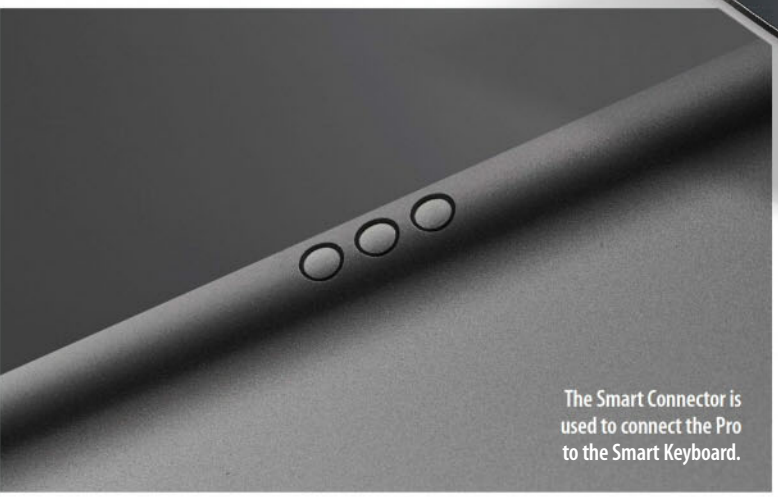
The fact that Apple has made an optional keyboard cover for it, plus iOS 9's support for running more than one app at a time with Slide Over, Split View and Picture in Picture, plus its simple sheer size, does prompt you to think of it not as an iPad at all but as a more traditional notebook. We know it's not – it's a tablet. That's fine – great, even, depending on your needs – but after decades of using desktops and notebooks, when presented with something that – when docked in a keyboard case – looks a lot like a notebook, your brain starts to think it will work like a notebook – and when it doesn't, you're more reminded of iOS' limitations than its benefits.

Some of the things that trip you up are big, system-level ones: iOS doesn't support a mouse, and we lost count of the number of times our thumbs twitched towards a non-existent trackpad when the iPad was propped up in Apple's keyboard case. Clearly, this has always been the case with iOS, but the iPad Pro's size and the fact that we've been using it plenty with a keyboard case makes it even more apparent.

Some differences are tiny. iOS now supports an app switcher accessed with ⌘+⇥ as on OS X, but because of how iOS handles running software, it's limited to just your 10 most recent apps, and you can't hit Q with an app highlighted to quit it. These aren't inherently bad things, but they can cause tiny moments of confusion throughout the day when things don't work as long-term Apple users expect them to.

The Pencil is a brilliant addition to the Pro – see p22 for our review.

We would have welcomed more iOS optimisations for the Pro's larger screen.



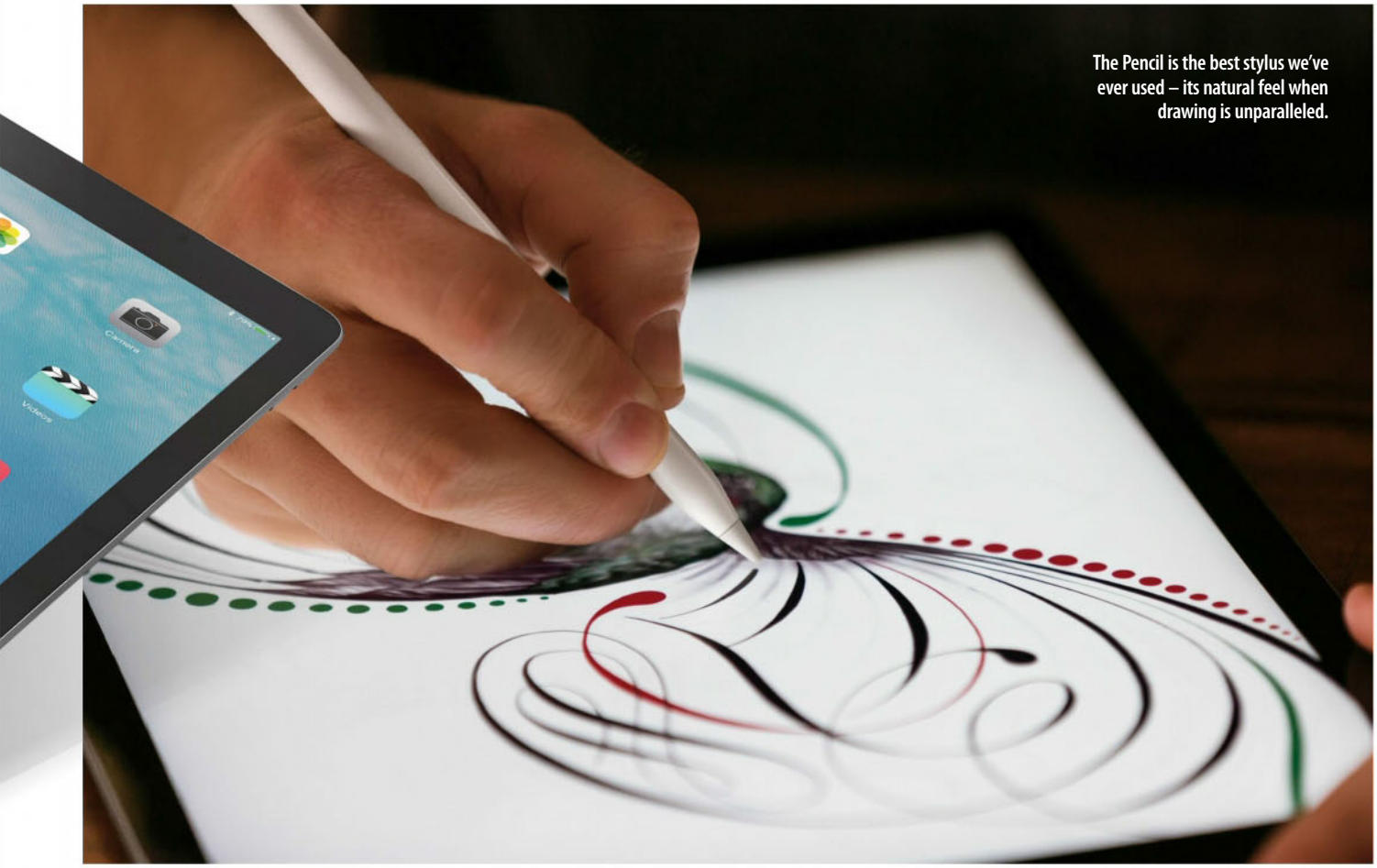
The Smart Connector is used to connect the Pro to the Smart Keyboard.

The Pro is thicker than the iPad Air 2, but still feels thin at just 6.9mm.

While in the past you wouldn't have even had that expectation, the fact that iOS has adopted some of OS X's conventions, but without perfect fidelity, creates a slightly uncomfortable tension when your muscle memory fights with reality.

Likewise, iOS 9's split-screen multitasking stuff is genuinely fantastically useful here, even more so on the Pro's bigger canvas compared to the iPad Air, letting you write in one app while having Safari open on the right of the screen for research, or draw in one while looking at source material in another. Indeed, with the sheer size of the screen, it can feel odd having something like Safari open fullscreen – we often brought in a second app just to balance things out a little.

But while these features are very welcome, there is confusion and compromise. Apps have to be updated to allow them to run as these 'secondary' apps on the right (and it does have to be the right). In addition, the way the apps can display themselves boils down to 'behaving like iPad apps' when the divider is in the middle of the screen, and 'behaving like iPhone apps' when it's



The Pencil is the best stylus we've ever used – its natural feel when drawing is unparalleled.

in its only other position further towards the right edge. Because of this, their interface can change completely, which makes for a most un-Apple-like experience.

Take Safari. On an iPad, you add a tab by tapping a plus icon at the top right; on an iPhone, you tap the overlapping squares icon at the bottom right, and then a plus icon. So depending purely on where the dividing line between apps is on your iPad Pro, a control might not just be in a different place, but in this case behind an entirely different button. This just adds unwelcome friction.

A way to go

It's not that the iPad Pro is a bad machine – it really, really isn't – but as long-time Mac users, we felt aware of these small chafing moments, and if you plan to use it with a keyboard, you might too.

So, do you buy this, maybe adding the Smart Keyboard rather than, say, a MacBook? Well, it's certainly cheaper – or at least, depending on configuration, can be – even with the pricey keyboard. Depending on your needs it can also be seen as a simpler and more fun computer, all while doing most of what most of us want a notebook to do – as well as some stuff a notebook can't do, importantly.

If you're of an artistic bent or spend a lot of time sketching diagrams, it's currently an easy decision; the Pencil is such a joy that you should buy the iPad Pro, whose larger canvas suits creative work – though we expect Pencil support to be rolled out across the whole iPad line during this year. (See the next page for a full review of the Pencil.)

For everyone else, it's much less clear-cut. The iPad Pro is a genuinely wonderful piece of tech – powerful, pleasing, impressive, joyous – though we can't help but feel the iPad line in general is at an awkward point in the process of evolving into something new. Once it grows its wings it's going to fly – and not in the same way as that airborne rat – but at the moment, it's still becoming fully formed.

Christopher Phin & Matt Bolton

Everything that made the iPad great made bigger, plus the wonderful Pencil. But the pure iPad experience is slightly tarnished with new complexities.

- ⊕ Lovely large screen
- ⊕ Powerful and flexible
- ⊕ Surprisingly rich speakers
- ⊖ iPad experience muddied

The Pencil is equipped with a Lightning connector in the tip, so you can charge it from your iPad Pro.

Apple Pencil

Is Apple's new stylus sharp enough to erase the competition?

★★★★★

£79 **Manufacturer** Apple, apple.com

Connectivity Bluetooth **Charging** Lightning connector **Includes** One extra tip

Apple isn't the first company to make a pressure-sensitive iPad stylus, but as is often the case, now it *has* finally made one, it is probably the best iPad stylus you can buy.

Developed specifically for the iPad Pro, the Pencil connects using Bluetooth and transmits a signal back and forth 240 times a second, so there's almost no perceptible lag when drawing. For many digital artists this potentially resolves the issue of latency, which has held back other styluses from being truly exceptional – and, when combined with a phenomenal degree of accuracy on the Pro's supersized screen, means your artwork is able to look better than ever before.

The Pencil feels great to use in your hand thanks to its slick white glossy finish. Tilting it enables you to shade as if using the edge of a pencil or charcoal, and drawing with the Pencil feels so natural that you find yourself checking your hand to make sure it isn't covered in charcoal smudges or ink stains as you draw. It's this distraction-free usability which is the Pencil's greatest feature.

With other styluses you find yourself focussing on what you are using, rather than what you are drawing. There's none of that with the Pencil, though, and the way it integrates seamlessly with apps such as Procreate and Adobe's Sketch and Photoshop Fix means you can simply enjoy being creative.

At £79, the Pencil is competitively priced when compared to rivals. Although it currently only works with the iPad Pro, if you have made the investment in the larger tablet your experience of it will not be complete without one of these. And you don't even need to be of an artistic bent to appreciate it.

Alex Thomas

An essential purchase for any iPad Pro owner. Apple's largest tablet just isn't the same without it.

- Virtually no lag
- Incredibly accurate
- Tilt detection for shading
- Super-quick charging

The iPad Pro has its biggest ever on-screen keyboard, so why buy a physical one too?

Smart Keyboard

Edging your iPad towards true MacBook replacement territory, but not with complete success

★★★★☆

£139 **Manufacturer** Apple, apple.com

Dimensions 30.6x2.3x0.7cm **Weight** 335g **Connectivity** Smart Connector

Apple hasn't released an official keyboard accessory since the first model of iPad, leaving it to third-parties to do so for its smaller tablets – and there are many good buys. The iPad Pro, by Apple's own admission, sets out a clear vision for how the company sees the future of computing, and as a tablet/laptop hybrid the need for a physical keyboard has never been more pressing.

When you see the iPad Pro docked in the Smart Keyboard you begin to understand that this is an iPad with serious computing potential, and we doubt any other manufacturer could make a keyboard case that's so in keeping with the style of the iPad Pro. It fits perfectly with Apple's Silicone Case, which protects the back of the iPad, but there's an odd gully on the front when the Smart Keyboard is closed to act as a screen cover, which is rather ungainly and smacks of needless compromise.

However, you wouldn't buy this to keep it closed; it's supposed to spend most of its active life in the typing or 'media' positions, and we're pleased to say it snaps into place easily and feels very sturdy in either configuration. Yet it's not ideal for using on your lap in typing mode, as you'll find it tends to bend in towards the fold at the back of the keyboard. The feel of the keys take a little getting used to, but is comfortable for longer periods, and their short travel is similar to the MacBook's.

The omission of a top row of media keys – offering system-wide shortcuts for volume and brightness controls, as well as play/pause and a Home button – may grate, since you'll have to reach up to the iPad's screen to make those tweaks. It seems like another unnecessary compromise. ***Christian Hall***

Apple's official keyboard for the iPad Pro has some ingenious elements, but it's not universally appealing.

- ⊕ Smart Connector is brilliant
- ⊕ Comfortable for a thin keyboard
- ⊖ No media keys or Home button
- ⊖ US layout only at present

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Future Publishing Limited
Quay House, The Ambury, Bath, BA1 1UA, UK
www.futureplc.com
www.myfavouritemagazines.co.uk
Phone +44 (0)1225 442244 Fax +44 (0)1225 732275
All email addresses take the form firstname.lastname@futurenet.com

EDITORIAL
EDITOR Matthew Bolton
MANAGING ART EDITOR Paul Blachford
ART EDITOR Mat Gartside
OPERATIONS EDITORS Jo Membery, Ed Ricketts
CONTRIBUTORS Christian Hall, Craig Grannell, Hollin Jones, Christopher Phin, Nick Peers, Alan Stonebridge, Alex Thomas
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